

STATE**OF****TENNESSEE**

(Rev. 12-15-21)

January 1, 2021

Supplemental Specifications – 900SS
of the
Standard Specifications for Road and Bridge Construction
January 1, 2021

Subsection 904.03 (pg. 931-934), 12-15-21; **Emulsified Asphalt**; Revise Table 904.03-1(c):

Table 904.03-1(c): Test Requirements for Emulsified Asphalt

Practices	AASHTO Test Method	CRS-2P	RS-2	RS-1	CRS-1
Saybolt-Furol Viscosity @ 77 °F, seconds	T59	n/a	n/a	20-100	<u>n/a</u>
Saybolt-Furol Viscosity @ 122 °F, seconds	T59	100-400	75-400	n/a	<u>20-100</u>
Storage Stability Test, 24- h, %	T59	1 Max	1 Max	1 Max	<u>1 Max</u>
5-day Settlement, %	T59	n/a	n/a	n/a	<u>n/a</u>
Particle Charge	T59	Positive	n/a	n/a	<u>Positive</u>
Sieve Test, %	T59	0.1 Max	0.1 Max	0.1 Max	<u>0.1 Max</u>
Residue by	T59	Evaporation	Distillation	Distillation	<u>Distillation</u>
Residue, %	T59	65 Min	63 Min	55 Min	<u>60 Min</u>
Demulsibility, %	T59	40 Min	60 Min	60 Min	<u>40 Min</u>
Distillate, %	T59	n/a	n/a	n/a	<u>n/a</u>
Oil Test, %	T59	n/a	n/a	n/a	<u>3.0 Max</u>
Stone Coating	T59	n/a	n/a	n/a	<u>n/a</u>
Float Test, seconds	T50	n/a	n/a	n/a	<u>n/a</u>
Penetration	T49	75-175	100-200	100-200	<u>100-250</u>
Elastic Recovery, % ⁽¹⁾	T301	50 Min	n/a	n/a	<u>n/a</u>
Ductility @ 77 °F, cm	T51	40 Min	40 Min	40 Min	<u>40 Min</u>
Ductility @ 40 °F, cm	T51	n/a	n/a	n/a	<u>n/a</u>
R&B Softening Point, °F	T53	125 Min	n/a	n/a	<u>n/a</u>
Original G*/sind @ 82 °C	T315	n/a	n/a	n/a	<u>n/a</u>

⁽¹⁾ Straight-sided mold, 20-cm elongation, 5min hold, 25 °C

Subsection 916.06 (pg. 988), 12-15-21; **Reflective Sheeting**; Revise Subsection:

Provide reflective sheeting from the Department's QPL conforming to AASHTO M 268 and the supplementary requirements for fungus resistance of AASHTO M 268. The sheeting material shall have a precoated adhesive backing or a heat and pressure activated adhesive backing protected by a removable liner.

For all signs with a SILVER-WHITE and ORANGE background when used on temporary barricades and channelizing drums, provide reflective sheeting ~~of that meets or exceeds AASHTO M 268, Type B. or better as specified by AASHTO M 268.~~

For all permanent panel signs with a SILVER-WHITE, YELLOW, RED, GREEN, BROWN, or BLUE background, provide reflective sheeting ~~of Encapsulated Lens or Microprismatic Lens material that meets or exceeding the minimum requirements for AASHTO M 268, Type DB, or better as specified by AASHTO M 268.~~

For overhead permanent signs attached to sign structures which overhang travel lanes and are not illuminated with sign lighting, provide reflective sheeting that meets AASHTO M 268, Type D.

For all other sign types, provide reflective sheeting that meets or exceeds AASHTO M 268, Type B.

For FLOURESCENT ORANGE background, material provide reflective sheeting that shall meet or exceeds the requirements for AASHTO M 268, Type B, as specified by AASHTO M 268.

Subsection 916.07 (pg. 988,989), 12-15-21; **Legends, Borders, and Accessories**; Revise Subsection:

Provide letters, numerals, symbols, borders, and route markers conforming to the MUTCD.

A. Type "A" Class I (Demountable)

Provide silver-white letters, numerals, symbols, borders, and route markers of a pre-coated pressure sensitive or a tack-free heat-activated adhesive reflective sheeting permanently adhered to the sign panel. ~~The reflective sheeting shall meet the requirements of 916.06 (Type B or better as specified by AASHTO M 268).~~

For all permanent panel signs, provide reflective sheeting that meets AASHTO M 268, Type D.

Mechanically apply the reflective sheeting to the properly prepared sign panel with the equipment and in a manner prescribed by the sheeting manufacturer. Letters, numerals, symbols, borders, and route markers shall be 0.032 inch thick aluminum sheet of 3003 H14 Alloy or approved composite material. Properly degrease and etch aluminum, or treat with a light, tight, amorphous chromate type coating.

Supply each letter, numeral, symbol, and route marker with mounting holes, and secure to the sign surface with corrosion-resistant screws, bolts, or rivets.

B. Type "A" Class 2 Cut-Out (Direct Applied Reflective Sheeting Copy)

Provide silver-white cut-out letters, numerals, symbols, borders, and route markers of a pre-coated pressure sensitive or a tack-free heat-activated adhesive reflective sheeting. ~~The reflective sheeting shall meet the requirements of 916.06 (Type B or better as specified by AASHTO M 268).~~

For all permanent panel signs, provide reflective sheeting that meets AASHTO M 268, Type D.

For all other sign types, provide reflective sheeting that meets or exceeds AASHTO M 268, Type B.